

## **REMARKS**

Claims 1, 6, 26-29, 32-36, and 39 are pending in the application, and are rejected in the non-final Office Action mailed January 9, 2007.

By way of this Amendment, claims 1, 6, 32, and 39 are amended to remove the rejection of claims 1, 6, 26-29, 32-36 and 39 in the non-final Office Action. Also, there are several grammatical corrections to the claims.

### **Claim Rejections - 35 USC § 112**

The rejection of claims 1, 6, 26-29, 32-36 and 39 in the non-final Office Action mailed January 9, 2007 reads as follows:

"Claims 1, 6, 26-29, 32-36 and 39 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Each of the base claims 1 and 6 recites the following limitation "calculating a light-output correction for each of a plurality of subsets of the LEDs, each light-output correction being calculated based at least upon factors pertaining to ... (b) **an average light output from at least a plurality of subsets of the LEDs**" (emphasis added), which is not supported by the current Specification as originally filed. The Specification indicates that the light-output correction for each of the subsets/groups of LEDs is calculated based on the **average for the exposure system**, which is further defined as the **average of the entire LED array** (see Specification, page 9, lines 25-27 and page 11, lines 28-29). The average light output of the entire LED array is basically calculated based on the measured light output of each of the LED element in the array and is different from the average light output from the plurality of subsets of the LEDs as claimed, which would require measuring the light output of the subsets of LEDs as a whole. In other words, the average light output from the plural subsets of the LEDs is an unknown parameter and/or is not requested in the calculation of the light-output correction.

Claims 26-29, 32-36 and 39 are dependent from claims 1 and 6 above, and are therefore indefinite.

Due to the uncertainty of the limitation, the claims are deemed to be so unclear as to preclude consideration in view of the prior art.

Appropriate correction is required."

**Claims 1, 6, 32, and 39 as amended remove the '112 rejection.**

Independent claim 1 is amended to recite "(b) an average light output from ~~at least a~~ the plurality of subsets of the LEDs".

Independent claim 6 is amended to recite "(b) an average radiation emission from ~~at least a~~ the plurality of subsets of the recording elements".

Dependent claims 32 and 39 are amended to be consistent with the foregoing amendments to independent claims 1 and 6, respectively.

The foregoing amendments to independent claims 1 and 6 are made in accordance with a telephone interview between the Examiner, Hai C. Pham, and the Attorney for Applicants, Roger A. Fields, on March 5, 2007. The Examiner indicated during the telephone interview that independent claims 1 and 6 as amended remove the '112 rejection.

Also, the foregoing amendments were reviewed with the first named inventor, Matthias H. Regelsberger, following the telephone interview with the Examiner, who then approved them.

**Claim Rejections - 35 USC § 103(a)**

The following remarks are in response to the earlier final Office Action mailed September 14, 2006 (which preceded the non-final Office Action mailed January 9, 2007), and they take into account the Examiner's statement in the non-final Office Action that "the claims are deemed to be so unclear as to preclude consideration in view of the prior art".

Claims 1, 6, 26, 27, 29-34, and 36-39 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,640,190 (Bollansee et al.) in view of U.S. Patent No. 4,982,203 (Uebbing et al.), in the final Office Action mailed September 14, 2006.

Claims 28 and 35 were rejected under 35 U.S.C. §103(a) as unpatentable over Bollansee et al. in view of Uebbing et al., and further in view of U.S. Patent No. 5,812,176 (Kawabe et al.), in the final Office Action mailed September 14, 2006.

The Applicants respectfully submit that the claims are patentable over the cited references, taken separately or in any proper combination, for at least the following reasons.

**With respect to Bollansee et al., the second correction means referred to by the Examiner does not pertain to calculating a light-output correction for each of a plurality of subsets of LEDs as required by independent claim 1.**

One notable feature of independent claim 1 is the limitations "calculating a light-output correction for each of a plurality of subsets of the LEDs", "wherein each of the plurality of subsets of the LEDs includes more than one LED". The final Office Action refers to column 10, line 3, to column 11, line 4, in Bollansee et al. as teaching calculating a light-output correction for each of a plurality of subsets of LEDs. See the middle of page 3 of the final Office Action. However, the Applicants understand this portion and related portions of Bollansee et al. to pertain to a second correction means that corrects energy output of individual recording sources, such as LEDs, and not subsets of LEDs. See column 9, line 53, to column 10, line 2, column 3, lines 35-41, and column 3, line 62 to column 4, line 2, in Bollansee et al. For example, column 10, line 3, to column 11, line 4, is understood to describe the "operating principles of [a] second correction means \*\*\*". See column 9, lines 53-54. Column 3, lines 40-41 describes "second correction means for applying \*\*\* second correction factors \*\*\*". Column 3, lines 35-39 describes that the "second correction factors [are] derived from said measurements of the non-uniformities of the energy output of each one of said individual recording sources \*\*\*" (underline added).

Accordingly, the Applicants submit that, with respect to Bollansee et al., the second correction means referred to by the Examiner does not pertain to calculating a light-output correction for each of a plurality of subsets of LEDs as required by independent claim 1.

**The first correction factor/means of Bollansee et al. does not teach or suggest that a light-output correction for each of a plurality of subsets of LEDs is calculated based at least upon an average light output from the plurality of subsets of the LEDs as required by independent claim 1.**

Bollansee et al. does, however, describe first correction factors/means that are understood to correct an average energy output of each subset of recording sources. See column 3, lines 28-34, and column 9, lines 34-52. However, the Applicants respectfully submit that the first correction factors/means of Bollansee et al. does not meet the calculating step of independent claim 1. In particular, the Applicants submit that the first correction

factors/means at least are not light-output corrections calculated based upon a factor pertaining to an average light output from the plurality of subsets of the LEDs as required by claim 1. To elaborate, Bollandsee et al. is understood to teach that the first correction factors/means "set the average energy level of a series of N recording sources of a recording module to a predetermined reference level \*\*\*". See column 9, lines 34-37. However, Bollandsee et al. is not understood to teach or suggest that the predetermined reference level is an average light output from the plurality of subsets of LEDs as required by claim 1. In contrast to claim 1, Bollandsee et al. appears to suggest the opposite, because it states that "[i]t is therefore an object of the first correction means to ensure that the average amount of energy emitted by the LEDs of each subset of LEDs equals the amount of energy emitted by the reference LED \*\*\*". See column 10, line 65, to column 11, line 1, (underline added). According to this statement, it appears that Bollandsee et al. is describing that the predetermined reference level is an amount of energy emitted by a single reference LED and not by a subset of LEDs as required by claim 1.

Accordingly, the Applicants respectfully submit that the first correction factor/means of Bollandsee et al. does not teach or suggest that a light-output correction for each of a plurality of subsets of LEDs is calculated based at least upon an average light output from the plurality of subsets of the LEDs as required by independent claim 1.

**Independent claim 6 is patentable for at least the same reasons as for patentability of independent claim 1.**

Independent Claim 6 includes features similar to that discussed above in connection with independent claim 1.

Accordingly, independent claim 6 is submitted to be patentable for at least the same reasons as for patentability of independent claim 1.

**The remaining dependent claims are patentable for at least the same reasons as for patentability of independent claims 1 and 6.**

The remaining claims depend from one of the independent claims 1 and 6, and are submitted to be patentable for at least the same reasons as for patentability of independent claims 1 and 6.

### CONCLUSION

It is submitted that, in view of the amendment to the claims to remove the outstanding '112 rejection, and further in view of the foregoing remarks regarding the earlier '103 rejection of the claims, the application is now in condition for allowance, a prompt notice of which is earnestly solicited.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Robert L. Walker", written in dark ink.

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